UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,653	07/03/2001	Michael J. Perani	07844-507001	9643

21876   7590   05/28/2003

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EXAMINER
HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
2672	5

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/898,653	PERANI ET AL.
	Examiner	Art Unit
	Chante Harrison	2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 July 2001</u> .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-24</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)

because reference characters "225" and "230" have both been used to designate the

step of exporting distorted art. A proposed drawing correction or corrected drawings are

required in reply to the Office action to avoid abandonment of the application. The

objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-5, 12 and 14-24 are rejected under 35 U.S.C. 102(a & b) as being

anticipated by Adobe "Adobe Illustrator 8.0 Classroom In A Book", Adobe Systems

Incorporated 1998.

As per independent claim 1, Adobe discloses receiving a representation of a digital

image, the image comprising vector objects (pp. 103, Fig.; pp. 374) "choose file...",

each of the objects being specified by control points (pp. 103, Fig. ; pp. 107, Fig.);

providing an editing brush for interactive editing of the image by a user (pp. 130), the

editing brush having a region of influence (pp. 136, Figs.), the editing brush being

operable to apply a displacement function to control points in the region of influence

(pp. 168, Figs.), whereby when the editing brush is applied by the user to the image, a

local distortion of the image is generated (pp. 169, Fig.) "Select the twirl tool...".

As per dependent claim 2, Adobe discloses receiving a user input specifying a shape for

the region of influence (pp. 134) "size...spacing option".

As per dependent claim 3, Adobe receiving a user input specifying a size for the region

of influence (pp. 134) "size option".

As per dependent claim 4, Adobe discloses add control point triplets to curves within the

region of influence to refine the complexity of the image preparatory to application of the

editing brush (pp. 107: fig.) "direct-selection tool lets you...edit individual segments in

the curved line"; (pp. 134) "can change brush settings either before or after brushes

have been applied to artwork.".

As per dependent claim 5, Adobe discloses determining at each application of the

editing brush whether to add control point triplets according to a user-specified value of

a detail parameter (pp. 168) "[add] anchor points...you can specify the number of

...points to create...".

As per dependent claim 7, Adobe discloses saving curve segment data of the image

before application of the editing brush (pp. 130, Figs.), and replacing segments of image

curves that have not been distorted by the editing brush are replaced with their

previously saved copies (pp. 130, Para 2) "the portion of the selected path which you

drew over is edited"; (pp. 132, Para 1) "...draw overlapping paths without altering the

earlier paths".

As per dependent claim 8, Adobe discloses apply a path simplification process in a

piece-wise fashion to areas of curves that have been distorted (pp. 119, Figs.).

As per dependent claim 12, Adobe discloses a parameter of the displacement function

is a trajectory of the editing brush as applied by the user (pp. 118, Figs.).

As per dependent claim 14, Adobe discloses a trajectory of the editing brush as applied

by the user determines a rotational orientation of the vector field around an axis

perpendicular to an image plane (pp. 134) "apply the brush to artwork...the rotation

option indicates the orientation of the object in the brush....relative to either the page or

the path".

As per dependent claim 15, Adobe discloses smooth details of curves; and remove superfluous control points (pp. 119) "...select the smooth tool...the...path may have fewer anchor points than the original".

As per dependent claim 16, Adobe moving control points of a curve in the region of influence towards the overall sweep of the curve (pp. 118, Figs.) "edit brushed paths...using the same methods as for paths drawn with the pencil tool".

As per dependent claim 17, Adobe discloses removing control points at a rate determined by the user (pp. 119) "...select the smooth tool...the...path may have fewer anchor points than the original".

As per dependent claim 18, Adobe discloses the displacement function defines a swirl effect (i.e. rotate) (p. 335 Figs).

As per dependent claim 19, Adobe discloses the displacement function defines a warp effect (Fig. 3, pp. 168).

As per dependent claim 20, Adobe discloses the displacement function defines an exhale effect (i.e. punk and bloat filter) (pp. 170).

As per dependent claim 21, Adobe discloses the displacement function defines an

inhale effect (i.e. punk and bloat filter) (pp. 170).

As per dependent claim 22, Adobe discloses the displacement function defines a

scallop effect (i.e. punk and bloat filter) (pp. 170).

As per dependent claim 23, Adobe discloses the displacement function defines a

crystallize effect (i.e. zigzag) (pp. 168).

As per dependent claim 24, Adobe discloses the displacement function defines a

wrinkle effect (i.e. zigzag) (pp. 168).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Adobe as applied to claim 1 above, and further in view of Mordy Golding "Sams

Teach Yourself Adobe Illustrator 9 in 24 Hours", Sams, 2000.

As per dependent claim 6, Adobe fails to disclose removing from the image those

control point triplets added to refine the complexity of the image that were not displaced

by application of the editing brush, which Golding discloses (pp. 4, Para 2 & 4). It would

have been obvious to one of skill in the art to include refining the image by removing

added control points not displaced by application of the editing brush as taught by

Golding in the disclosure of Adobe because Adobe teaches applying a smooth tool to

modify displaced paths.

As per dependent claim 10, Adobe discloses determining a continuity constraint (i.e.

anchor point position) for each anchor point in the region of influence before the

displacement function is applied (pp. 114, Figs.); but fails to specifically ensure that

each anchor point in the region of influence satisfies the continuity constraint after the

editing brush is applied, which Golding discloses (pp. 2, Para 1) "Illustrator automatically

joins the preceding anchor point with the next point on the path". It would have been obvious to one of skill in the art to include Golding's satisfies of the continuity constraint for each anchor point in the region of influence after the editing brush is applied in the disclosure of Adobe because Adobe discloses applying a direct selection tool, which allows the manipulation of a triplet (i.e. anchor and tangent handles) and displays edited curve portions connected to adjacent unedited curve portions so that they appear continuous (pp. 114, Figs.).

As per dependent claim 11, Adobe discloses determine a continuity constraint (i.e. anchor point position) in the region of influence for each anchor point that has at least one adjacent tangent handle also in the region of influence (pp. 114, Figs.) "Use direct selection tool to select...segments", the continuity constraint being determined before the displacement function is applied (pp. 114, Figs.) "Select anchor point...Adjust anchor point). Adobe fails to disclose ensuring that the continuity constraint for each such anchor point is satisfied after the editing brush is applied, which Golding discloses (pp. 2, Para 1) "Illustrator automatically joins the preceding anchor point with the next point on the path". It would have been obvious to one of skill in the art to include Golding's satisfies of the continuity constraint for each anchor point in the region of influence after the editing brush is applied in the disclosure of Adobe because Adobe discloses applying a direct selection tool, which allows the manipulation of a triplet (i.e. anchor and tangent handles) and displays edited curve portions connected to adjacent unedited curve portions so that they appear continuous (pp. 114, Figs.).

5.   Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Adobe as applied to claim 1 above, and further in view of Paul Borrel and Ari Rappoport

"Simple Constrained Deformations for Geometric Modeling and Interactive Design",

ACM 1994.

As per dependent claim 9, Adobe fails to disclose the displacement function provides a

smooth falloff to zero influence at the limit of the region of influence, which Borrel

discloses (abstract). It would have been obvious to one of skill in the art to include

Borrel's disclosure of a smooth falloff to zero influence at the limit of the region of

influence in the disclosure of Adobe because Adobe teaches performing deformation of

a selected path, where the deformed path maintains continuity with adjacent curve

portions (pp. 114, Figs.).

As per dependent claim 13, Adobe fails to disclose the displacement function defines a

vector field of displacements over the region of influence, which Borrel discloses

(abstract). It would have been obvious to one of skill in the art to include Borrel's

disclosure of a displacement function that defines a vector field of displacements over

the region of influence in the disclosure of Adobe because Adobe teaches designating

control points that define a path in a vector graphic image, where the defined path is

manipulated based on user defined displacement of the control points.

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner

should be directed to Chante Harrison whose telephone number is (703) 305-3937.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Razavi, can be reached at (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

May 19, 2003